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(1988) Wocleic Acids Res 16: dh POTTER, B. V. L., ROMARVIUK, P.J., and M M ECKSTEIN F. (1983) "The Stever-chemical Course of DNA hydroly 5,5 2580, 1758-1760, pg 1759.

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med inventor	Elizabeth Bay Frayne
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Application Number	
Filing Date	
First Named Inventor	Elizabeth Fay Frayne
Art Unit	1623
Examiner Name	D. Khari
Attorney Docket Number	·

			U.S. PATI	ENT DOCUMENTS	
Examiner Initials		<u>Document Number</u> Number - Kind Code <sup>‡</sup> (If known	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
M-		US 6239, 265	5-29-01	Cook, Phillip Dan	
	. 1707 500	US 6, 326, 478	10-12-4-01	Cheravallath, 2.5	
		US-6,310,198	10-30-01	Jang, Jin-Yan et	مراسي
		US-6,294,664	9-28-01	Ravikumaset	V. etal
		US-6, 117, 993	9=12-00	Tyer, R.P. etal	
		US-6,031,042	2-29-00	Just 6. et al	120 1 10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
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		US-5,644,048		Yau, EK	
		US 6,096,880	8-1-00	Kool, E./.	
		US 5, 990, 300_	9-23-9.9	H/att, A. C.	
		US 5,932,450	9-3-99	Dattagusta, N. e	
		US 5,916,771	6-29-99	Kacia, D. L. eta	14 - 1
		108 5,739,3/1	4-14-48	Lackeys O. L.	
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dis.		SINHA et al (1983) Tet/ahedron Lett. 24: 5843-5846.	
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		GRI PFITHS and EPERON (1987) Nucleic Acids Res. 15: 4145-4162	
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	/	EKSTEIN (1985) Annu. Rev. Biochem. 54:367-402.	-
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